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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,064	08/26/2003	Philip D. Nguyen	2002-IP-007693U1	5824

7590 06/09/2005

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EXAMINER

FULLER, BRYAN A

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 06/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/650,064

Applicant(s)

NGUYEN, PHILIP D.

Examiner

Bryan A. Fuller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 - 40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/26/03, 5/6/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claim 22 is objected to because of the following informalities: Claim 22 repeats claim 2 word for word. The application has been examined under the assumption that claim 22 was intended to be dependent upon claim 21 as opposed to claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by McDaniel et al (5,547,023).

With respect to claims 1, 3, 21 and 23: McDaniel et al teaches in column 2, lines 14 – 44 a method of increasing production from a zone along a well bore by controlling the migration of formation sand in a well bore and increasing surface area for well production comprising the steps of: (a) hydrazetting at least one slot into a zone along a well bore; and, (b) placing a consolidation material comprising particulates into the slot. Additionally, the reference teaches the use of a resin as the consolidated material.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 17 – 20, 22, and 37 – 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDaniel et al in view of Echols et al (2002/0104217 A1).

With respect to claims 2, 17 – 20, 22, and 37 – 40: McDaniel et al teaches the features as claimed except for placing and expanding an expandable screen in the isolated zone of a cased or uncased well bore. McDaniel et al also fails to teach an expandable screen where the size of the openings in the expandable screen are smaller than both the average size of particulate used and the average size of the formation sands. Echols et al teaches in column 2, lines 10 – 20, column 3, lines 38 – 42, and column 5, lines 9 – 22 a method of placing and expanding an expandable screen in the isolated zone of a cased or uncased well bore, wherein the size of the openings in the expandable screen are smaller than both the average size of particulate used and the average size of the formation sands. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified McDaniel et al's method by

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placing and expanding an expandable screen in the isolated zone of a cased or uncased well bore, wherein the size of the openings in the expandable screen are smaller than both the average size of particulate used and the average size of the formation sands in view of the teachings of Echols et al. The motivation for the combination of these two references is that the screen of Echols et al may also be advantageously utilized in applications where it is not necessary or desirable to expand the well screen.

6. Claims 4 – 8, 11, 13 – 16, 24 – 28, 31, and 33 - 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDaniel et al in view of Murphey et al (4,665,988).

With respect to claims 4 – 8, 11, 13 – 16, 24 – 28, 31, and 33 – 36: McDaniel et al teaches the features as claimed except for the use of specific compounds as the hardening agent, silane coupling agent, and a surfactant with the hardening resin. Additionally, McDaniel et al does not teach the use of a phenolic resin nor does it teach the use of ethylene glycol butyl ether as a solvent. Finally, McDaniel et al does not teach the use of a specific tackifying material. Murphey et al teaches in column 1, line 53 – column 11, line 26 the use of aromatic amines as a hardening agent, n-beta-(amine-ethyl)-gamma-aminopropyltrimethoxy silane as the silane coupling agent, and mixtures of cationic and non-ionic surfactants. Murphey et al also teaches the use of bisphenol A-epichlorohydrin as the resin and ethylene glycol butyl ether as a solvent. Finally, Murphey et al teaches polysaccharide as a tackifying material. Therefore, it would have been obvious to one of ordinary skill in the art at the

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time the invention was made to have modified McDaniel's method by including the specific hardening agent, silane coupling agent, surfactant, resin, solvent and tackifying material in view of the teachings of Murphey et al. The motivation lies in the fact that the method of preparing the fill material used in subterranean formation allows for the maintenance of a desired permeability whereby communication to the formation is maintained and not substantially restricted.

1. Claims 9 – 10, 12, 19 – 20, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDaniel et al and Murphey et al as applied to claims 4, 11, 24, and 31 above, and further in view of Acock et al (6,732,800).

With respect to claims 9 – 10, 12, 19 – 20, and 32: McDaniel et al and Murphey et al teach the features as claimed except for the use of furan-based resin and a specific solvent for the resin. Acock et al teaches in column 5, lines 11 - 37 the use of butyl acetate as a solvent for the resin. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the combination of McDaniel's and Murphey's methods by using a furan-based resin and including butyl acetate as a solvent for the resins in view of the teachings of Acock et al. The motivation for this combination is that the solvent reduces viscosity and removes water generated by the condensation of the resin.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan A. Fuller whose telephone number is

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(571) 272-8119. The examiner can normally be reached on M - Th 7:30 - 5:00 and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David J. Bagnell
Supervisory Patent Examiner
Art Unit 3672

baf